

(19)



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(11) Publication number:

**0 471 257 A3**

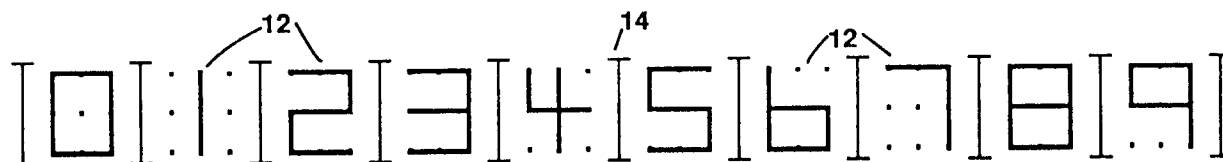
(12)

**EUROPEAN PATENT APPLICATION**(21) Application number: **91113056.5**(51) Int. Cl.<sup>5</sup>: **G06K 9/18**(22) Date of filing: **02.08.91**(30) Priority: **03.08.90 US 563198**(43) Date of publication of application:  
**19.02.92 Bulletin 92/08**(84) Designated Contracting States:  
**DE FR GB**(88) Date of deferred publication of the search report:  
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**W-8000 München 19 (DE)**(54) **Dot constrained hand printed character recognition system and method.**

(57) A constrained character entry form for receiving hand printed characters suitable for machine reading with the form including a web for receiving hand printed characters, and printed on the web a countable number of preprinted constellations of at least three minimum sized visible dots arranged in columns and rows with each of the constellations having a height that is equivalent to the spacing between a column of three equally spaced dots to permit characters to be hand printed using substantially straight lines emanating from and terminating at

two or more of said dots. The invention also includes a method for entering hand written characters into an automated character reading system.

The web is optically scanned to generate an electrical signal corresponding to markings on the web between each pair of adjacent dots within a constellation. Finally the signals are compared against a set of reference signals corresponding to a set of acceptable characters and a determination is made as to the closest matching character to the written character.

**Fig. 2****EP 0 471 257 A3**



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## EUROPEAN SEARCH REPORT

Application Number

EP 91 11 3056

| DOCUMENTS CONSIDERED TO BE RELEVANT  |   |   |   |
|--|---|---|---|
| Category   | Citation of document with indication, where appropriate, of relevant passages   | Relevant to claim                               | CLASSIFICATION OF THE APPLICATION (Int. Cl.5) |
| Y  | IBM TECHNICAL DISCLOSURE BULLETIN<br>vol. 14, no. 8, January 1972, NEW YORK US<br>pages 2274 - 2275<br>D.E. PETERSON ET AL. 'Fonts and<br>constraints for alphanumeric handwriting' | 1,2,4,10  | G06K9/18                                      |
| A  | * the whole document *<br>---   | 14-16,<br>20,22,<br>23,25-30                    |   |
| Y  | CH-A-560 937 (N. GHARBI-TOUNSI ET AL.)<br>2 April 1971<br>* the whole document *<br>---   | 1,2,4,10  |   |
| A  | US-A-4 893 333 (BARAN ET AL.)<br>9 January 1990<br>* column 6, line 62 - column 7, line 39;<br>figures 2A-2G,9A-9C *<br>---   | 16,17,<br>20,24                                 |   |
| A  | US-A-3 058 093 (H.C. VERNON & R.R. WALSH)<br>9 October 1962<br>* figure 2 *<br>---  | 3,14  | TECHNICAL FIELDS<br>SEARCHED (Int. Cl.5)      |
| A  | DE-A-1 944 779 (R.C. SIDORSKY)<br>5 March 1970<br>* figures 1,2 *<br>-----  | 6   | G06K<br>H04N                                  |
| The present search report has been drawn up for all claims   |   |   |   |
| Place of search<br>THE HAGUE   |   | Date of completion of the search<br>07 MAY 1993 | Examiner<br>VAN GINKEL K.E.A.                 |
| <b>CATEGORY OF CITED DOCUMENTS</b><br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document<br>T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>.....<br>& : member of the same patent family, corresponding document |   |   |   |